

1047-05-104

Jie Ma and **Xingxing Yu*** (yu@math.gatech.edu), School of Mathematics, Georgia Institute of Technology, Atlanta, GA 30084. *K_5 -subdivisions in 5-connected nonplanar graphs.*

A well known theorem of Kuratowski states that a graph is planar iff it contains no subdivision of K_5 or $K_{3,3}$. It is also known that any 3-connected nonplanar graph other than K_5 contains a subdivision of $K_{3,3}$. Seymour and Kelmans independently conjectured that every 5-connected nonplanar graph contains a subdivision of K_5 . We establish this conjecture for graphs containing K_4^- . (Received January 21, 2009)